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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,108	07/31/2001	Gary L. Thunquest	10004737-1	3464

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EXAMINER

LIN, WEN TAI

ART UNIT PAPER NUMBER

2154

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,108

Applicant(s)

THUNQUEST ET AL.

Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/31/01 and 4/15/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/15/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-18 are presented for examination.
2. Claims 6 and 18 are objected to because the term "the directly accessible remote destination" found in claims 6 and 18 appears to lack antecedent basis:

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 7-11 and 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Boivie et al.[U.S. Pat. No. 6625773].

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5. As to claim 1, Boivie teaches the invention as claimed including: a method for transmitting data packets over a network to selected multiple remote destinations, the method comprising the steps of:

embedding in a first data packet a list of multiple remote destination addresses corresponding to each of the selected multiple remote destinations [col.2, lines 34-35];

providing an addressing protocol by which networking elements are capable of accessing the list of multiple remote destination addresses [col.2, lines 36-39]; and

instructing networking elements to transmit a copy of the first data packet to each of the selected multiple remote destinations corresponding to each of the addresses in the list of multiple remote destination addresses [col.2, lines 40-56].

6. As to claim 2, Boivie further teaches that the method further comprises using the network elements to transmit the data packets without having the data packets travel over any segment of the network more than once [col.4, lines 32-35].

7. As to claim 3, Boivie further teaches that the method further comprises transmitting the data packets to the selected multiple remote destinations without using a subscription service to initiate delivery of the data packets [col.2, lines 4-24; i.e., Boivie's small-group multicasting scheme is designed to avoid the need of using multicasting subscription service].

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8. As to claim 4, Boivie further teaches that the embedding step comprises using internetworking protocol (IP) data packets [col.1, lines 15-18].

9. As to claims 7-11 and 13-16, since the features of these claims can also be found in claims 1-4, they are rejected for the same reasons set forth in the rejection of claims 1-4 above.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 5-6, 12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boivie et al.(hereafter "Boivie")[U.S. Pat. No. 6625773], as applied to claims 1-4, 7-11 and 13-16 above.

12. As to claim 5, Boivie does not specifically teach that the method further including network storage devices in the list of selected multiple remote destinations.

However, it is well known that network storage devices such as the nodes associated with service containers, databases, and storage area network are legitimate

destination nodes for IP packets. Additionally, Boivie teaches that application of the small group multicasting technique is not prevented for such applications [col.5, line 63 – col.6, line 3].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include network storage devices as part of Boivie's multicasting destination addresses because Boivie's small group multicasting technique would simplify the multicasting communication protocol involving a small number of network storage devices.

13. As to claim 6, Boivie further teaches that the instructing step further comprises instructing network switches or routers receiving the first data packet to copy the first data packet into one or more second data packets, wherein copying the first data packet comprises:

creating one or more second data packet copies of the received first data packet; and setting a destination IP address field in each second data packet to one of the non-zeroed IP addresses in the list of selected multiple remote destinations in the second data packet; and

transmitting the one or more second data packets to the directly accessible remote destination or network element indicated for each non-zeroed IP address in the list of selected multiple remote destinations embedded in the one or more second data packets.

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Boivie further teaches partitioning the IP addresses among the determined next-hop branches. Boivie does not specifically teach teaches zeroing out each IP address in the list of selected multiple remote destinations that is not directly accessible beyond the network switch or router receiving the first data packet.

However, it is obvious to one of ordinary skill in the art that Boivie's partitioning approach is in fact an alternative of zeroing approach because they are functionally equivalent and may serve as alternative to each other.

14. As to claims 12 and 17-18, since the features of these claims can also be found in claims 1, 5-7 and 13, they are rejected for the same reasons set forth in the rejection of claims 1, 5-7 and 13 above.

15. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 days from the mail date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone

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numbers for the organization where this application or proceeding is assigned are as follows:

(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

November 4, 2004

Wen-Tai Lin
11/4/04